

**Abstract**

A rotary incubation station for an automated analyzer is provided. The rotary incubation station includes a platform, a circular ring-shaped outside rotary wheel having a plurality of nesting locations for washing and reading vessels, and a circular disc-shaped  
5 inside rotary wheel having a plurality of nesting locations for incubation and storage of vessels. The rotary incubation station also includes a spur gear mechanism for rotating the outside and inside rotary wheels, including spur gear drivers respectively engaged with spur gear teeth of the outside and inside rotary wheel, providing accurate control of the rotation of the outside and inside rotary wheels.